

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

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NOTIFICATION OF TRANSMITTAL OF
INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing
(day/month/year) 15.11.2004

Applicant's or agent's file reference
62950

IMPORTANT NOTIFICATION

International application No.
PCT/EP 03/50976

International filing date (day/month/year)
10.12.2003

Priority date (day/month/year)
17.12.2002

Applicant
THALES et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the International preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The Applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purpose of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purpose of deciding whether, in that State, the claimed invention is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

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TRAITE DE COOPERATION EN MATIERE DE BREVETS

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RAPPORT D'EXAMEN PRELIMINAIRE INTERNATIONAL



(article 36 et règle 70 du PCT)

Référence du dossier du déposant ou du mandataire	POUR SUITE A DONNER voir la notification de transmission du rapport d'examen préliminaire international (formulaire PCT/PEA/416)	
Demande internationale No. PCT/EP 03/50976	Date du dépôt international (jour/mois/année) 10.12.2003	Date de priorité (jour/mois/année) 17.12.2002
Classification internationale des brevets (CIB) ou à la fois classification nationale et CIB F16D11/04		
Déposant THALES et al.		

1. Le présent rapport d'examen préliminaire international, établi par l'administration chargée de l'examen préliminaire international, est transmis au déposant conformément à l'article 36.
2. Ce RAPPORT comprend 4 feuilles, y compris la présente feuille de couverture.
- ☐ Il est accompagné d'ANNEXES, c'est-à-dire de feuilles de la description, des revendications ou des dessins qui ont été modifiées et qui servent de base au présent rapport ou de feuilles contenant des rectifications faites auprès de l'administration chargée de l'examen préliminaire international (voir la règle 70.16 et l'instruction 607 des Instructions administratives du PCT).
- Ces annexes comprennent feuilles.

3. Le présent rapport contient des indications et les pages correspondantes relatives aux points suivants :

- I ☒ Base de l'opinion
- II ☐ Priorité
- III ☐ Absence de formulation d'opinion quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle
- IV ☐ Absence d'unité de l'invention
- V ☒ Déclaration motivée selon la règle 66.2(a)(ii) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration
- VI ☐ Certains documents cités
- VII ☐ Irrégularités dans la demande internationale
- VIII ☐ Observations relatives à la demande internationale

Date de présentation de la demande d'examen préliminaire internationale 09.07.2004	Date d'achèvement du présent rapport 15.11.2004
Nom et adresse postale de l'administration chargée de l'examen préliminaire international  Office européen des brevets D-80298 Munich Tél. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Fonctionnaire autorisé Foulger, M N° de téléphone +49 89 2399-2960 

PCT/EP 03/50976

Formulaire PCT/PEA/409 (janvier 2004)

**RAPPORT D'EXAMEN
PRÉLIMINAIRE INTERNATIONAL**

Demande internationale n°

PCT/EP 03/50976

5. ☐ Le présent rapport a été formulé abstraction faite (de certaines) des modifications, qui ont été considérées comme allant au-delà de l'exposé de l'invention tel qu'il a été déposé, comme il est indiqué ci-après (règle 70.2(c)) :

(Toute feuille de remplacement comportant des modifications de cette nature doit être indiquée au point 1 et annexée au présent rapport.)

6. Observations complémentaires, le cas échéant :

V. Déclaration motivée selon l'article 35(2) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration

1. Déclaration			
Nouveauté	Oui:	Revendications	1-10
	Non:	Revendications	
Activité inventive	Oui:	Revendications	1-10
	Non:	Revendications	
Possibilité d'application industrielle	Oui:	Revendications	1-10
	Non:	Revendications	

2. Citations et explications

voir feuille séparée

Concernant le point V

Déclaration motivée quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration

Il est fait référence aux documents suivants :

D1: US-A-4 382 495 (FLEITAS ARTHUR M) 10 mai 1983 (1983-05-10)

1. Revendication 1**1.1 Etat de la technique**

Le document D1, qui est considéré comme étant l'état de la technique le plus proche, décrit un dispositif d'accouplement selon le préambule de la revendication

1. De plus D1 décrit que:

les moyens de décrabotage comportent au moins une première goulotte (124) solidaire d'un élément menant du crabot (108,28), au moins une seconde goulotte (72) solidaire de l'arbre menant (A), ainsi qu'un élément roulant (130) destiné à rouler entre la première et la seconde goulottes.

Les goulottes selon D1 sont en forme de "V".

1.2 Problème

Le problème que se propose de résoudre la présente invention est donc de réaliser un dispositif d'accouplement plus compact.

1.3. Solution

L'invention résout ce problème au moyen des caractéristiques suivantes:

- la première goulotte a une forme hélicoïdale autour de l'axe
- la seconde goulotte a une forme d'une portion de tore autour de l'axe

Cette solution pas comprise dans l'état de la technique et n'en découle pas de manière évidente.

2. Revendications 2-10

Les revendications dépendantes 2-10 décrivent des caractéristiques particulières du dispositif de la revendication 1.



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Translation

Applicant's or agent's file reference 62950	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/EP2003/050976	International filing date (day/month/year) 10 décembre 2003 (10.12.2003)	Priority date (day/month/year) 17 décembre 2002 (17.12.2002)
International Patent Classification (IPC) or national classification and IPC F16D 11/04		
Applicant THALES		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:
 - ☒ Box No. I Basis of the report
 - ☐ Box No. II Priority
 - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - ☐ Box No. IV Lack of unity of invention
 - ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - ☐ Box No. VI Certain documents cited
 - ☐ Box No. VII Certain defects in the international application
 - ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 09 juillet 2004 (09.07.2004)	Date of completion of this report 15 November 2004 (15.11.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2003/050976

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ The international application as originally filed/furnished
- ☒ the description:
- pages _____ 1-7 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- pages _____ 1-10 _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the drawings:
- pages _____ 1/4-4/4 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP 03/50976

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims	1-10	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following document:

D1: US-A-4 382 495 (FLEITAS ARTHUR M) 10 May 1983 (1983-05-10)

1. Claim 1

1.1 Prior art

D1, which is considered to be the closest prior art, describes a coupling device according to the preamble of claim 1. Furthermore, D1 indicates that: the declutching means comprise at least a first groove (124) rigidly connected to a dog-guiding element (108, 28), at least a second groove (72) rigidly connected to the drive shaft (A), as well as a rolling element (130) intended to roll between the first and the second grooves. The grooves according to D1 are V-shaped.

1.2 Problem

The problem that the present invention is intended to solve is therefore that of providing a more compact coupling device.

1.3 Solution

The invention solves the stated problem by means of the following features:

- the first groove has a spiral shape about the axis;
- the second groove has the shape of a partial torus about the axis.

This solution is not found in the prior art and cannot be derived in an obvious manner therefrom.

2. Claims 2 to 10

Dependent claims 2 to 10 describe particular features of the device of claim 1.